

Title (en)
NOVEL CRISPR/CAS12F ENZYME AND SYSTEM

Title (de)
NEUARTIGES CRISPR/CAS12F-ENZYM UND SYSTEM

Title (fr)
NOUVELLE ENZYME CRISPR/CAS12F ET SYSTÈME

Publication
EP 3875469 A4 20220817 (EN)

Application
EP 19880142 A 20191029

Priority
• CN 201811266209 A 20181029
• CN 2019113996 W 20191029

Abstract (en)
[origin: EP3875469A1] The present invention belongs to the field of nucleic acid editing, in particular to the field of clustered regularly interspaced short palindromic repeats (CRISPR) technology. In particular, the present invention provides a Cas effector protein, a fusion protein comprising the Cas effector protein, and a nucleic acid molecule encoding the same. Also provided are a compound and a composition for nucleic acid editing (e.g., gene or genome editing) comprising the protein or the nucleic acid molecule, and a method for nucleic acid editing (e.g., gene or genome editing) using the protein.

IPC 8 full level
C07K 14/00 (2006.01); **C07K 19/00** (2006.01); **C12N 9/16** (2006.01); **C12N 9/22** (2006.01); **C12N 15/113** (2010.01); **C12N 15/90** (2006.01)

CPC (source: CN EP KR US)
C12N 9/16 (2013.01 - CN); **C12N 9/22** (2013.01 - EP KR US); **C12N 15/111** (2013.01 - US); **C12N 15/113** (2013.01 - CN KR); **C12N 15/62** (2013.01 - US); **C12N 15/90** (2013.01 - EP KR); **C12N 15/902** (2013.01 - CN US); **C07K 2319/00** (2013.01 - CN); **C07K 2319/01** (2013.01 - EP); **C07K 2319/09** (2013.01 - EP KR); **C07K 2319/40** (2013.01 - EP); **C07K 2319/70** (2013.01 - EP); **C07K 2319/71** (2013.01 - EP); **C12N 2310/20** (2017.05 - CN EP KR US)

Citation (search report)
• [XP] WO 2019178427 A1 20190919 - ARBOR BIOTECHNOLOGIES INC [US], et al & DATABASE Geneseq [online] 14 November 2019 (2019-11-14), "Type V-I CRISPR-Cas effector protein, SEQ:16.", XP002806993, retrieved from EBI accession no. GSP:BGT87283 Database accession no. BGT87283 & DATABASE Geneseq [online] 14 November 2019 (2019-11-14), "Type V-I CRISPR-Cas effector protein (Cas12i2), SEQ:5.", XP002806994, retrieved from EBI accession no. GSP:BGT87272 Database accession no. BGT87272
• [X] DATABASE Geneseq [online] 12 June 2008 (2008-06-12), "Rice genomic DNA sequence SEQ ID NO 40566.", XP002806995, retrieved from EBI accession no. GSN:AQE08660 Database accession no. AQE08660
• [A] MURUGAN KARTHIK ET AL: "The Revolution Continues: Newly Discovered Systems Expand the CRISPR-Cas Toolkit", MOLECULAR CELL, ELSEVIER, AMSTERDAM, NL, vol. 68, no. 1, 5 October 2017 (2017-10-05), pages 15 - 25, XP085207633, ISSN: 1097-2765, DOI: 10.1016/J.MOLCEL.2017.09.007
• [A] SHMAKOV SERGEY ET AL: "Discovery and Functional Characterization of Diverse Class 2 CRISPR-Cas Systems", MOLECULAR CELL, vol. 60, no. 3, 1 November 2015 (2015-11-01), AMSTERDAM, NL, pages 385 - 397, XP055785070, ISSN: 1097-2765, DOI: 10.1016/j.molcel.2015.10.008
• See also references of WO 2020088450A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
EP 3875469 A1 20210908; EP 3875469 A4 20220817; AU 2019372642 A1 20210617; AU 2019372642 B2 20231123; BR 112021007994 A2 20211026; CA 3118251 A1 20200507; CN 111757889 A 20201009; CN 111757889 B 20210525; CN 113106081 A 20210713; CN 113136375 A 20210720; CN 113136375 B 20230106; IL 282746 A 20210630; JP 2022512982 A 20220207; JP 7216877 B2 20230202; KR 20210129033 A 20211027; MX 2021004898 A 20210618; PH 12021550904 A1 20211129; SG 11202104347U A 20210528; US 2021395784 A1 20211223; WO 2020088450 A1 20200507

DOCDB simple family (application)
EP 19880142 A 20191029; AU 2019372642 A 20191029; BR 112021007994 A 20191029; CA 3118251 A 20191029; CN 2019113996 W 20191029; CN 201980014560 A 20191029; CN 202110473632 A 20191029; CN 202110473640 A 20191029; IL 28274621 A 20210428; JP 2021525173 A 20191029; KR 20217016579 A 20191029; MX 2021004898 A 20191029; PH 12021550904 A 20210422; SG 11202104347U A 20191029; US 201917289204 A 20191029